



## Complete Summary

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### TITLE

Chronic obstructive pulmonary disease (COPD): percentage of patients aged 18 years and older who had a spirometry evaluation results documented at least annually.

### SOURCE(S)

Physician Consortium for Performance Improvement®. Clinical performance measures: chronic obstructive pulmonary disease (COPD). Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2006. 8 p. [12 references]

## Measure Domain

### PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

### SECONDARY MEASURE DOMAIN

Does not apply to this measure

## Brief Abstract

### DESCRIPTION

This measure is used to assess the percentage of patients who had a spirometry evaluation results documented at least annually.

### RATIONALE

According to the American Thoracic Society (ATS) and the European Respiratory Society (ERS), spirometry should be performed in all patients suspected of chronic obstructive pulmonary disease (COPD). This is necessary for diagnosis, assessment of severity of the disease and for following the progress of the disease.

According to the National Heart, Lung, and Blood Institute (NHLBI)/World Health Organization (WHO), for the diagnosis and assessment of COPD, spirometry is the gold standard as it is the most reproducible, standardized, and objective way of measuring airflow limitation. FEV<sub>1</sub>/FVC less than 70% and a post bronchodilator FEV<sub>1</sub> less than 80% predicted confirms the presence of airflow limitation that is not fully reversible.

A patient's decline in lung function is best tracked by periodic spirometry measurements. Useful information about lung function decline is unlikely from spirometry measurements performed more than once a year. Spirometry should be performed if there is a substantial increase in symptoms or a complication.

## **PRIMARY CLINICAL COMPONENT**

Chronic obstructive pulmonary disease (COPD); spirometry

## **DENOMINATOR DESCRIPTION**

All patients aged 18 years and older with the diagnosis of chronic obstructive pulmonary disease (COPD) (see the related "Denominator Inclusions/Exclusions" field in the Complete Summary)

## **NUMERATOR DESCRIPTION**

All patients with documented spirometry results on the medical record (FEV<sub>1</sub> and FEV<sub>1</sub>/FVC)

## **Evidence Supporting the Measure**

### **EVIDENCE SUPPORTING THE CRITERION OF QUALITY**

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

## **Evidence Supporting Need for the Measure**

### **NEED FOR THE MEASURE**

Unspecified

## **State of Use of the Measure**

### **STATE OF USE**

Current routine use

### **CURRENT USE**

Internal quality improvement

### Application of Measure in its Current Use

#### **CARE SETTING**

Ambulatory Care  
Community Health Care  
Managed Care Plans  
Physician Group Practices/Clinics  
Rural Health Care

#### **PROFESSIONALS RESPONSIBLE FOR HEALTH CARE**

Advanced Practice Nurses  
Physician Assistants  
Physicians

#### **LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED**

Individual Clinicians

#### **TARGET POPULATION AGE**

Age greater than or equal to 18 years

#### **TARGET POPULATION GENDER**

Either male or female

#### **STRATIFICATION BY VULNERABLE POPULATIONS**

Unspecified

### Characteristics of the Primary Clinical Component

#### **INCIDENCE/PREVALENCE**

An estimated 12.1 million adults ages 25 and older are reported to have the diagnosis of chronic obstructive pulmonary disease (COPD).

#### **EVIDENCE FOR INCIDENCE/PREVALENCE**

National Heart, Lung, and Blood Institute. Chronic obstructive pulmonary disease data fact sheet. Bethesda (MD): US Department of Health and Human Services, NIH, NHLBI; 2003 Mar. 6 p.

#### **ASSOCIATION WITH VULNERABLE POPULATIONS**

Unspecified

## **BURDEN OF ILLNESS**

Chronic obstructive pulmonary disease (COPD) is a slowly progressive disease impacting the nation's health. In the United States, COPD is the 4th leading cause of death.

## **EVIDENCE FOR BURDEN OF ILLNESS**

National Heart, Lung, and Blood Institute. Morbidity and mortality: 2002 chartbook on cardiovascular, lung, and blood diseases. Bethesda (MD): US Department of Health and Human Services, NIH, NHLBI; 2002 May.

## **UTILIZATION**

Annually, 1.5 million emergency department visits are made for chronic obstructive pulmonary disease (COPD) and approximately 725,000 hospitalizations occur.

## **EVIDENCE FOR UTILIZATION**

National Heart, Lung, and Blood Institute. Chronic obstructive pulmonary disease data fact sheet. Bethesda (MD): US Department of Health and Human Services, NIH, NHLBI; 2003 Mar. 6 p.

## **COSTS**

The total direct and indirect cost of chronic obstructive pulmonary disease (COPD) in 2002 are estimated to be \$32.1 billion.

## **EVIDENCE FOR COSTS**

National Heart, Lung, and Blood Institute. Chronic obstructive pulmonary disease data fact sheet. Bethesda (MD): US Department of Health and Human Services, NIH, NHLBI; 2003 Mar. 6 p.

## **Institute of Medicine National Healthcare Quality Report Categories**

## **IOM CARE NEED**

Living with Illness

## **IOM DOMAIN**

Effectiveness

## Data Collection for the Measure

### **CASE FINDING**

Users of care only

### **DESCRIPTION OF CASE FINDING**

All patients aged 18 years and older with the diagnosis of chronic obstructive pulmonary disease (COPD)

### **DENOMINATOR SAMPLING FRAME**

Patients associated with provider

### **DENOMINATOR INCLUSIONS/EXCLUSIONS**

#### **Inclusions**

All patients aged 18 years and older with the diagnosis of chronic obstructive pulmonary disease (COPD)

#### **Exclusions**

Documentation of medical reason(s) for no spirometry evaluation; documentation of patient reason(s) for no spirometry evaluation; documentation of system reason(s) for no spirometry evaluation

### **RELATIONSHIP OF DENOMINATOR TO NUMERATOR**

All cases in the denominator are equally eligible to appear in the numerator

### **DENOMINATOR (INDEX) EVENT**

Clinical Condition

### **DENOMINATOR TIME WINDOW**

Time window follows index event

### **NUMERATOR INCLUSIONS/EXCLUSIONS**

#### **Inclusions**

All patients with documented spirometry results on the medical record (FEV<sub>1</sub> and FEV<sub>1</sub>/FVC)

#### **Exclusions**

None

### **MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS**

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

#### **NUMERATOR TIME WINDOW**

Episode of care

#### **DATA SOURCE**

Administrative data  
Medical record

#### **LEVEL OF DETERMINATION OF QUALITY**

Individual Case

#### **PRE-EXISTING INSTRUMENT USED**

Unspecified

### **Computation of the Measure**

#### **SCORING**

Rate

#### **INTERPRETATION OF SCORE**

Better quality is associated with a higher score

#### **ALLOWANCE FOR PATIENT FACTORS**

Unspecified

#### **STANDARD OF COMPARISON**

Internal time comparison

### **Evaluation of Measure Properties**

#### **EXTENT OF MEASURE TESTING**

Unspecified

### **Identifying Information**

#### **ORIGINAL TITLE**

Spirometry.

**MEASURE COLLECTION**

[The Physician Consortium for Performance Improvement® Measurement Sets](#)

**MEASURE SET NAME**

[Chronic Obstructive Pulmonary Disease Performance Measurement Set](#)

**SUBMITTER**

American Medical Association on behalf of the Physician Consortium for Performance Improvement®

**DEVELOPER**

Physician Consortium for Performance Improvement®

**FUNDING SOURCE(S)**

Unspecified

**COMPOSITION OF THE GROUP THAT DEVELOPED THE MEASURE**

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## **FINANCIAL DISCLOSURES/OTHER POTENTIAL CONFLICTS OF INTEREST**

Conflicts, if any, are disclosed in accordance with the Physician Consortium for Performance Improvement® conflict of interest policy.

## **ENDORSER**

National Quality Forum

## **INCLUDED IN**

Physician Quality Reporting Initiative

## **ADAPTATION**

Measure was not adapted from another source.

## **RELEASE DATE**

2006 Mar

## **MEASURE STATUS**

This is the current release of the measure.

## **SOURCE(S)**

Physician Consortium for Performance Improvement®. Clinical performance measures: chronic obstructive pulmonary disease (COPD). Tools developed by physicians for physicians. Chicago (IL): American Medical Association (AMA); 2006. 8 p. [12 references]

## **MEASURE AVAILABILITY**

The individual measure, "Spirometry," is published in the "Clinical Performance Measures: Chronic Obstructive Pulmonary Disease (COPD)." This document and technical specifications are available in Portable Document Format (PDF) from the American Medical Association (AMA)-convened Physician Consortium for Performance Improvement® Web site: [www.physicianconsortium.org](http://www.physicianconsortium.org).

For further information, please contact AMA staff by e-mail at [cqi@ama-assn.org](mailto:cqi@ama-assn.org).

## **NQMC STATUS**

This NQMC summary was completed by ECRI on August 28, 2006. The information was verified by the measure developer on July 6, 2007.



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